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REMARKS

Claims 1-26 are pending in this application. Claims 1, 3, 12, 14, 17 and 26 are amended without introducing any new matter.

5 Claims 1-5, 7, 8, and 13 are rejected under 35 USC 102(a) as being anticipated by Applicant Admitted Prior Art (AAPA)

Applicant asserts that claim 1 is not anticipated by the AAPA because the AAPA does not teach or suggest the denominator of the voltage gain is a simple exponential function. Since the AAPA discloses the denominator of the voltage gain Av comprises not only a simple exponential function but also a constant term 1 (Specification of the invention: Page 2, Line 1-3), the denominator of the voltage gain Av of AAPA is not the so-called simple exponential function. Therefore, reconsideration of claim 1 is respectfully requested. As claims 2-5, 7, 8, and 13 are dependent upon claim 1, if claim 1 is found to be allowable, so too should the dependent claims.

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Claim 12 is rejected under 35 USC 102(b) as being anticipated by Yamasaki (U.S. Patent No. 5,162,678)

Applicant asserts that claim 1 is patentable over Yamasaki because Yamasaki at least fails to teach or suggest the voltage gain of the amplifying stage is decreasing while the controlling voltage is increasing (Specification of the invention: Fig. 4). Yamasaki discloses an automatic gain control amplifier having a voltage gain increasing with an increasing control voltage ($\bar{V}_C V_C^*$) (Yamasaki: Fig. 2). Otherwise, Yamasaki also fails to disclose the variable gain stage is coupled to the amplifying stage by using a current mirror structure. Hence, for at least the above-mentioned reasons, claim 1 is patentable over Yamasaki. Since claim 12 is dependent upon claim 1, it should be allowed over Yamasaki if claim 1 is found to be allowable.

Claims 14-19, 21, 22, and 26 are rejected under 35 USC 102(b) as being anticipated by Yamasaki (U.S. Patent No. 5,162,678)

Applicant asserts that claim 14 is not anticipated by Yamasaki because Yamasaki at least fails to teach or suggest the voltage gain increases linearly in decibel while the

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controlling voltage decreases (Specification of the invention: Fig. 4). Yamasaki discloses an automatic gain control amplifier having the voltage gain <u>increasing</u> with an <u>increasing</u> control voltage ($\tilde{V_C}V_C^*$) (Yamasaki: Fig. 2). Besides, Yamasaki also fails to disclose the variable gain stage is coupled to the amplifying stage by using a current

- 5 <u>mirror structure</u>. Therefore, Yamasaki fails to teach or suggest the claimed invention and thereby reconsideration of claim 14 is respectfully requested. As claims 15-19, 21, 22, and 26 are dependent upon claim 14, if claim 14 is found to be allowable, so too should the dependent claims.
- 10 Claims 14 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 13 of copending Application No. 10/708,202

Applicant has included a terminal disclaimer in compliance with 37 CFR 1.321(c) to overcome the provisional rejection as the conflicting application is commonly owned with the present application.

Consideration of pending claims 1-26 is respectfully requested.

Sincerely yours,

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30 D.C. is 13 hours behind the Taiwan time, i.e. 9 AM in D.C. = 10 PM in Taiwan.)